

Appl. No. 10/016,825  
Amdt. dated January 6, 2004  
Reply to Office action of October 6, 2003

**REMARKS/ARGUMENTS**

Reconsideration of the rejection of the claims and allowance of the application as amended are respectfully requested. The Examiner's 35 U.S.C. 112, second paragraph, rejection of claim 2 has been removed by amending the claim to correct a mistaken mismatch between its preamble and independent claim 1. The Examiner's 35 U.S.C. 103(a) rejection of the claims has been removed in part by both explaining the meaning of the term "characterizing" in claims 1 and 2 and by adding additional claims 6-9 expanding "characterizing" to include "and displaying" to make the meaning of "characterizing" even more clear. The Examiner's 35 U.S.C. 103(a) rejection of the claims has been overcome by showing that the mathematical symbol "/" inherently describes a numerator and denominator and by showing that it is not obvious to combine variables for greater predictive ability until it is shown that the variables are independent.

The original terms "now" and "severe" in claim 2 were mistakenly copied from another series of claims. The preamble of claim 2 has now been amended to be in agreement with the preamble of its independent claim 1.

The Examiner several times states that the claims fail to expressly use LDL-C in the numerator and the sum of HDL-C and bilirubin levels in the denominator. The use of the mathematical symbol "/" describing a ratio inherently places LDL-C in the numerator and the sum of HDL-C and bilirubin levels in the denominator.

The Examiner refers to step (c) of claim 1 as being a non-functional process step. The term "characterizing" includes in its dictionary definition "to mark or distinguish". If

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“characterizing” meant merely determining, the Examiner likely would be correct. The primary infringing act at which claim 1 is directed would be a display, such as a screen display or a printout, from, for example, a piece of medical test equipment. That display would be a “useful, concrete and tangible result” exactly as contemplated in *State Street*, that is, something of “real world” value and thus not a non-functional process step.

New claims 6-9 claim this with greater specificity by adding “and displaying”.

The Examiner argues in effect that it would have been obvious to one of ordinary skill in the art at the time the invention was made to increase the diagnostic sensitivity of Schwertner’s original formula by optimizing values of LDL-C, HDL-C and bilirubin in the numerator and denominator of a new ratio. But, as pointed out in column 2 of page 88 of the Examiner’s Kannel reference, “what is most striking about the recent Framingham data is not the demonstration that the higher the HD lipoprotein the lower the risk, but the power and independence of HD lipoprotein in prediction of risk.” In other words, as shown in applicants’ specification, what is “striking” about their results, and thus not obvious, is the power and independence of their discovery. Variables are often surrogates of other values and thus combining them has no value. They may be surrogates because they depend on the same mechanism. They may be surrogates for other reasons. Regardless, until they can be shown to be independent variables, and even sufficiently independent that they can produce statistically useful results, then attempts at combining them are merely obvious to try, not the standard for obviousness under 35 U.S.C. 103(a).

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In view of the foregoing amendments and remarks, it is respectfully submitted that claims 1-9 has now been shown to define applicants' invention and distinguish it over the art of record. Applicants respectfully request, therefore, that the Examiner allow the application as amended.

Respectfully submitted,



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Fredric L. Sinder, Reg. No. 28475  
Attorney for Applicant(s)

(937) 255-2872  
(937) 255-3733 (fax)